COVERAGE NAME: GNIS

COVERAGE AREA: County

COVERAGE DESCRIPTION:

The 'GNIS' layer contains the locations and names of features of interest in California. The source of this point coverage is the U.S. Geological Survey's Geographic Names Information System (GNIS) datafiles. These files are compiled mainly from USGS map products such as the 7.5' 1:24,000 quads. There are 59 different types of features in the coverage. Users should remember that these feature types are not exhaustive. For example, reselecting schools will not give you every California school, but it will furnish a large number of school locations. The features presented are the same ones as seen on USGS map sheets.

This layer is useful for furnishing landmarks on plots. It can also serve as a base data layer. The features help to orient the viewer and give a sense of scale to the plot. There is some overlap with the PLACES layer (populated places). If this causes problems, reselect type = ppl, then nselect.

SPECIAL NOTE FOR CALTRANS USERS:

The USGS has determined that cave names and locations are sensitive information. The Department has maintained these data in calgnis. Users are urged to exercise discretion in the release of these data.

VITAL STATISTICS:

Datum:	NAD 83Projection: Albers
Units:	Meters
1st Std. Parallel:	34 00 00 (34.0 degrees N)
2nd Std. Parallel:	40 30 00 (40.5 degrees N)
Longitude of Origin:	-120 00 00 (120.0 degrees W)
Latitude of Origin:	00 00 00 (0.0 degrees)
False Easting (X shift):	0
False Northing (Y shift):	-4,000,000
Source:	USGS Geographic Names Information System (GNIS) via California Dept of Fish and Game
Source Media:	GNIS CDROM
Source Projection:	Geographic (latitude/longitude)
Source Units:	Degrees
Source Scale:	various
Capture Method:	data conversion
Conversion Software	FoxPro 2.6 and ARC/INFO rev. 7
Data Structure:	Vector
ARC/INFO Coverage Type:	Point
ARC/INFO Precision:	Single

ARC/INFO Tolerances: Not applicable
Number of Features: 105862 statewide
Layer Size:
Data Size:
Data Updated: August 1998

DATA DICTIONARY:

DATAFILE NAME: GNIS.PAT

Non-standard POINT attribute fields:

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC
25	ID	8	11	F	0
33	GNISID	20	20	C	0
53	FEAT_NAME	66	66	C	-
119	FEAT_TYPE	12	12	C	-
131	LATDD	8	12	F	5
139	LONDD	8	12	F	5
147	CELLNAME	30	30	C	-
177	ELEVAT_FT	8	8	F	0
185	VARIANT	254	200	C	-
439	SEQUENCE	4	6	B	-

ID New USGS GNIS ID

GNISID Old USGS GNIS ID

FEAT_NAME Name of feature

FEAT_TYPE Type of feature
LATDD Latitude – decimal degree
LONDD Longitude – decimal degree
CELLNAME
ELEVAT_FT Elevation of feature (feet)

VARIANT Variant name(s)
SEQUENCE

DETAILED ITEM DESCRIPTIONS:

FEAT_TYPE: The feature type as classified by USGS.
Valid TYPES are:

arch cape gap mine slope

area	cave	glacier	other	spring
bar	cem	gut	park	stream
basin	channel	harbor	pillar	summit
bay	church	hosp	plain	swamp
beach	civil	hospita	ppl	tank
bench	cliff	island	range	trail
bend	crater	lake	rapids	tunnel
bldg	dam	lava	reserve	valley
bridge	falls	levee	reservo	well
buildin	flat	locale	ridge	woods
canal	forest	militar	school	

VARIANT_NM: other variant name by which feature may be known

The following information is extracted from the Geographic Names Information System Data Users Guide 6, Department of the Interior, U.S Geological Survey, 1987.

APPENDIX B.--Geographic Names Information System (GNIS) Feature Class Definitions

The feature class terms and abbreviations currently consist of nine or fewer letters and were chosen for computer search and retrieval purposes. They do not necessarily represent terminology for the identification of all kinds of cultural and natural features. Although some of the terms may agree with dictionary definitions, they represent more generalized categories. Some commonly used generics are listed in parentheses at the end of each entry to assist in understanding the range of cultural and natural entities represented by the term. Refer to the Reference Data Base to retrieve all generics thus far encountered in geographic names compilation. In most instances a plural form is listed as if it were singular; for example, archipelago or islands would be categorized as island. The terms and the definitions are as follows:

AIRPORT - manmade facility maintained for the use of aircraft (airfield, airstrip, landing field, landing strip).

ARCH - natural arch-like opening in a rock mass (bridge, natural bridge, sea arch).

AREA - any one of several areally extensive natural features not included in other categories (badlands, barren, delta, fan, garden).

ARROYO - watercourse or channel through which water may occasionally flow (coulee, draw, gully, wash).

BAR - natural accumulation of sand, gravel, or alluvium forming an underwater or exposed embankment (ledge, reef, sandbar, shoal, spit).

BASIN - natural depression or relatively low area enclosed by higher land (amphitheater, cirque, pit, sink).

BAY - indentation of a coastline or shoreline enclosing a part of a body of water; a body of watter partly surrounded by land (arm, bight, cove, estuary, gulf, inlet, sound).

BEACH - the sloping shore along a body of water that is washed by waves or tides and is usually covered by sand or gravel (coast, shore, strand).

BENCH - area of relatively level land on the flank of an elevation such as a hill, ridge, or mountain where the slope of the land rises on one side and descends on the opposite side (level).

BEND - curve in the course of a stream and (or) the land within the curve; a curve in a linear body of water (bottom, loop, meander).

BRIDGE - manmade structure carrying a trail, road, or other transportation system across a body of water or depression (causeway, overpass, trestle).

BUILDING - a manmade structure with walls and a roof for protection of people and (or) materials, but not including church, hospital, or school.

CANAL - manmade waterway used by watercraft or for drainage, irrigation, mining, or water power (ditch, lateral).

CAPE - projection of land extending into a body of water (lea, neck, peninsula, point).

CAVE - natural underground passageway or chamber, or a hollowed out cavity in the side of a cliff (cavern, grotto).

CEMETERY - a place or area for burying the dead (burial, burying ground, grave, memorial garden).

CHANNEL - linear deep part of a body of water through which the main volume of water flows and is frequently used as a route for watercraft (passage, reach, strait, thoroughfare, throughfare).

CHURCH - building used for religious worship (chapel, mosque, synagogue, tabernacle, temple).

CIVIL - a political division formed for administrative purposes (borough, county, municipio, parish, town, township).

CLIFF - very steep or vertical slope (bluff, crag, head, headland, nose, palisades, precipice, promontory, rim, rimrock).

CRATER - circular-shaped depression at the summit of a volcanic cone or one on the surface of the land caused by the impact of a meteorite; a manmade depression caused by an explosion (caldera, lua).

CROSSING - a place where two or more routes of transportation form a junction or intersection (overpass, underpass).

DAM - water barrier or embankment built across the course of a stream or into a body of water to control and (or) impound the flow of water (breakwater, dike, jetty).

FALLS - perpendicular or very steep fall of water in the course of a stream (cascade, cataract, waterfall).

FLAT - relative level area within a region of greater relief (clearing, glade, playa).

FOREST - bounded area of woods, forest, or grassland under the administration of a political agency (see woods) (national forest, national grasslands, State forest).

GAP - low point or opening between hills or mountains or in a ridge or mountain range (col, notch, pass, saddle, water gap, wind gap)

GEYSER - eruptive spring from which hot water and (or) steam and in some cases mud are periodically thrown.

GLACIER - body or stream of ice moving outward and downslope from an area of accumulation; an area of relatively permanent snow or ice on the top or side of a mountain or mountainous area (icefield, ice patch, snow patch).

GUT - relatively small coastal waterway connecting larger bodies of water or other waterways (creek, inlet, slough).

HARBOR - sheltered area of water where ships or other watercraft can anchor or dock (hono, port, roads, roadstead).

HOSPITAL - building where the sick or injured may receive medical or surgical attention (infirmary).

ISLAND - area of dry or relatively dry land surrounded by water or low wetland (archipelago, atoll, cay, hammock, hummock, isla, isle, key, moku, rock).

ISTHMUS - narrow section of land in a body of water connecting two larger land areas.

LAKE - natural body of inland water (backwater, lac, lagoon, laguna, pond, pool, resaca, waterhole).

LAVA - formations resulting from the consolidation of molten rock on the surface of the Earth (kepula, lava flow).

LEVEE - natural or manmade embankment flanking a stream (bank, berm).

LOCALE - place at which there is or was human activity; it does not include populated places, mines, and dams (battlefield, crossroad, camp, farm, ghost town, landing, railroad siding, ranch, ruins, site, station, windmill).

MINE - place or area from which commercial minerals are or were removed from the Earth; not including oilfield (pit, quarry, shaft).

OILFIELD - area where petroleum is or was removed from the Earth.

OTHER - category for miscellaneous named manmade, entities that cannot readily be placed in the other feature classes listed here.

PARK - place or area set aside for recreation or preservation of a cultural or natural resource annd under some form of goverment administration; not including National or State forests- or Reserves (national historical landmark, national park, State park, wilderness area).

PILLAR - vertical, standing, often spire-shaped, natural rock formation (chimney, monument, pinnacle, pohaku, rock tower).

PLAIN - a region of general uniform slope, comparatively level and of considerable extent (grassland, highland, kula, plateau, upland).

PPL - (populated place) place or area with clustered or scattered buildings and a permanent human population (city, settlement, town, village).

RANGE - chain of hills or mountains, a somewhat linear, complex mountainous or hilly area (cordillera, sierra).

RAPIDS - fast-flowing section of a stream, often shallow and with exposed rock or boulders (riffle, ripple).

RESERVE - a tract of land set aside for a specific use (does not include forests, civil divisions, parks).

RESERVOIR - artificially impounded body of water (lake, tank).

RIDGE - elevation with a narrow, elongated crest which can be part of a hill or mountain (crest, cuesta, escarpment, hogback, lae, rim, spur).

SCHOOL - building or group of buildings used as an institution for study, teaching, and learning (academy, college, high school, university).

SEA - large body of salt water (gulf, ocean).

SLOPE - a gently inclined part of the Earth's surface (grade, pitch).

SPRING - place where underground water flows naturally to the surface of the Earth (seep).

STREAM - linear body of water flowing on the Earth's surface (ana- branch, awawa, bayou, branch, brook, creek, distributary, fork, kill, pup, rio, river, run, slough).

SUMMIT - prominent elevation rising above the surrounding level of the Earth's surface; does not include pillars, ridges, or ranges (ahu, berg, bald, butte, cerro, colina, cone, cumbre, dome, head, hill, horn, knob, knoll,, mauna, mesa, mesita, mound, mount, mountain, peak, puu, rock, Sugarloaf, table, volcano).

SWAMP - poorly drained wetland, fresh or saltwater, wooded or grassy, possibly covered with open water (bog, cienega, marais, marsh, pocosin).

TRAIL - route for passage from one point to another; does not include roads or highways (jeep trail, path, ski trail).

TOWER - a manmade structure, higher than its diameter, generally used for observation, storage, or electronic transmission.

TUNNEL - linear underground passageway open at both ends.

VALLEY - linear depression in the Earth's surface that generally slopes from one end to the othher (barranca, canyon, chasm, cove, draw, glen, gorge, gulch, gulf, hollow, ravine).

WELL - manmade shaft or hole in the Earth's surface used to obtain fluid or gaseous materials.

WOODS - small area covered with a dense growth of trees; does not include an area of trees under the administration of a political agency (see forest).

APPENDIX C.--Parenthetical Descriptors used with Names

The following terms have been used on USGS topographic maps and other sources to provide additional information or clarity about the name or the feature to which the name refers.

Abandoned
Active Mine
Alkali
Archaeological Site
BLM - refers to Bureau of Land Management

Campground
Cemetery
Diabase Dike
Dry Spring
Flowing
Foot Bridge
Ghost Town
Historic
Historical
Historical Monument
Historical Ruins
Historic Site
Inactive Mine
Jeep Trail
Mud
Natural Arch
Oil Field
Old Channel
Old Stage Station
Oxbow
P.O. - refers to Post Office
Pack Trail
Placer - refers to mining activities
Polluted Spring
Post Office
Private
Rock Formation
Ruins
Salt Lake
Secondary Name - refers to alternate or a prior name; for example: Lake Katy (Old River Lake)
Siding
Site
Station
Submerged Rock
Sulphur Spring

USDA - refers to U.S. Department of Agriculture

USFS - refers to U.S. Forest Service

USGS - refers to U.S. Geological Survey

1941 - refers to year of occurrence

DATA QUALITY ASSESSMENT:

The following are subjective comments regarding this data.

Feature completeness is good, as is attribute completeness. The feature and attribute accuracy is also good. Fifty nine types of features are classified.

DATA CONTACT:

Contact Name: Isaac Oshima
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First Version: March 5, 1996

Last edited: November 9, 2000

November 9, 2000 GNIS Update

The files used to update GNIS (03/05/1996) were obtained from Paul Veisze (pveisze@dfg.ca.gov) from a request to the USGS/GNIS Staff, transmitted by Mark Brooks (mbrooks@usgs.gov) on 10/17/2000. The following listing describes the GNIS files used to update the March 5, 1996 GNIS dataset.

The following metadata text was supplied with the GNIS extract files:

Ca_list1.txt - File contains all primary data

Column 1 - Feature ID
Column 2 - Gipsy ID
Column 3 - Feature Name
Column 4 - Feature Type
Column 5 - State FIPS Numeric Code
Column 6 - County FIPS Numeric Code
Column 7 - County Name
Column 8 - Primary Latitude (decimal)
Column 9 - Primary Longitude (decimal)
Column 10 - Primary Latitude (dms)
Column 11 - Primary Longitude (dms)
Column 12 - Cell Name (7.5' USGS Quadrangle)
Column 13 - Source Latitude (decimal)
Column 14 - Source Longitude (decimal)
Column 15 - Source Latitude (dms)
Column 16 - Source Longitude (dms)
Column 17 - Elevation
Column 18 - Total Population (Bureau of Census 1994/incorporated place only)
Column 19 - Federal Status (BGN)

Ca_list1_var.txt - File contains all variant names and biblio codes

Column 1 - Feature ID
Column 2 - Variant Name
Column 3 - Biblio Code

Ca_list2_coord.txt - File contains all secondary coordinates for features that have more than one coordinate

Column 1 - Feature ID
Column 2 - Sequence Number (starts with sequence number 2)
Column 3 - Cell Name (7.5' USGS Quadrangle)
Column 4 - Secondary Latitude (decimal)
Column 5 - Secondary Longitude (decimal)
Column 6 - Secondary Latitude (dms)
Column 7 - Secondary Longitude (dms)

The previous GNIS contained 86,139 unique features. GNIS can contain multiple points for a single unique feature such as a river. This count reflects only on point instance per feature. The 11/09/2000 version contains 104,133 single unique features; an increase of: 17,994.

The individual feature type counts are listed in comma-delimited format below.

"Feat_type","oldcount","newcount","chgcount"
airport,996,990,-6
arch,18,20,2
area,281,289,8
arroyo,0,2,2
bar,277,281,4
basin,503,498,-5
bay,382,426,44
beach,241,282,41
bench,30,31,1
bend,100,99,-1
bridge,146,157,11
building,2006,4065,2059
canal,2284,2297,13
canyon,0,1,1
cape,627,662,35
cave,83,0,-83
cemetery,687,804,117
channel,97,104,7
church,1642,7377,5735
civil,642,666,24
cliff,186,187,1
crater,24,24,0

crossing,86,96,10
dam,1554,1469,-85
falls,163,174,11
flat,2676,2706,30
forest,44,41,-3
gap,670,670,0
geyser,1,2,1
glacier,21,21,0
gut,217,217,0
harbor,86,103,17
hospital,510,824,314
island,505,529,24
isthmus,1,1,0
lake,2688,2641,-47
lava,15,15,0
levee,17,23,6
locale,10634,13489,2855
military,44,53,9
mine,2920,3069,149
oilfield,123,128,5
other,209,134,-75
park,3967,6728,2761
pillar,300,305,5
plain,27,26,-1
po,403,1046,643
ppl,6104,7477,1373
range,310,302,-8
rapids,10,10,0
reserve,80,80,0
reservoir,1421,1404,-17
ridge,1750,1755,5
school,8704,11068,2364
sea,1,2,1
slope,43,43,0
spring,3056,3080,24
stream,9955,9893,-62
summit,5535,5600,65
swamp,94,98,4
tower,969,972,3
trail,808,1182,374
tunnel,122,127,5
valley,7639,7613,-26
well,232,237,5
woods,173,197,24

There have been minor field modifications. For the most part, the old field names and types have been preserved.

GNIS has added new fields those of interest are listed below:

Ca_list1.txt - File contains all primary data

Column 1 - Feature ID

Column 2 - Gipsy ID

Column 12 - Cell Name (7.5' USGS Quadrangle)

Ca_list2_coord.txt - File contains all secondary coordinates for features that have more than one coordinate

Column 2 - Sequence Number (starts with sequence number 2)

Feature ID is used in the GIS dataset, but is named ID as previously however, the new number has been used instead of the old ID numbers. Secondly, since new versions of GNIS do not include the feature type, "caves" and DFG wishes to keep their inclusion; we generated our own ID. The ID for caves is "999" + their GNIS_ID.

Gipsy ID is essentially the old GNIS_ID with a different field name. Our use of the fieldname, GNIS_ID was retained. The field is now a numeric, however instead of a character field.

The Cell Name field is the USGS 7.5' Quadname and is a new field.

The elevat_ft field is now numeric.

The Sequence Number field is new and contains the sequence number for those features that have more than one coordinate.

The old and new GNIS contain more fields than are represented in the DFG processed GIS dataset. DFG dropped fields were those that were either very sparsely populated or could be more effectively derived from other GIS layers such as county or state FIPS code.

There were many spurious data points outside of California. Most of the points that were reasonably off-shore were kept. Those north, south and east into Oregon, Arizona, and Nevada respectively were clipped using a 1 kilometer buffer California.